

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A vehicle rearview mirror system, comprising:
  - a rearview mirror assembly comprising a mirror casing for housing an electro-optic reflective element, a support for attaching said mirror casing to a portion of a vehicle, said mirror casing pivotally attaching to said support
  - 5 wherein said mirror casing that houses said reflective element is moveable with respect to said support and a control for establishing a reflectance level of said reflective element and for determining a heading of the vehicle;
    - said control comprising a first circuit assembly and a second circuit assembly that are electrically interconnected, wherein said first circuit assembly
    - 10 is mounted to be moveable with movement of said mirror casing whereby movement of said first circuit assembly is substantially separate from said support, and said second circuit assembly is mounted substantially fixed at said support, said second circuit assembly being substantially separate from movement of said mirror casing, and said second circuit assembly including a
    - 15 vehicle heading sensor.
2. The mirror system in claim 1 wherein said first and second circuit assemblies are built from a common circuit board.
3. The mirror system in claim 1 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.
4. The mirror system in claim 2 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.
5. The mirror system in claim 1 wherein said first and second circuit assemblies are interconnected by at least one wire bonded between said first and second circuit assemblies.

6. The mirror system in claim 5 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.
7. The mirror system in claim 1 wherein said first and second circuit assemblies are interconnected by a ribbon cable.
8. The mirror system in claim 1 wherein said heading sensor comprises a two-axis compass sensor.
9. The mirror assembly in claim 1 including an opening in said first circuit assembly that is greater than or substantially equal to a size of said second circuit assembly.
10. The mirror assembly in claim 9 wherein said second circuit assembly is generally juxtaposed with said opening in said first circuit assembly.
11. The mirror assembly in claim 9 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.
12. The mirror assembly in claim 9 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.
13. The mirror assembly in claim 9 wherein said first and second circuit assemblies are interconnected by at least one wire bonded between said first and second circuit assemblies.
14. The mirror assembly in claim 13 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.
15. The mirror assembly in claim 9 wherein said first and second circuit assemblies are interconnected by a ribbon cable.

16. The mirror assembly in claim 9 wherein said heading sensor comprises a two-axis compass sensor.
17. The mirror assembly in claim 1 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.
18. The mirror assembly in claim 17 wherein said ball mount comprises a single ball mount.
19. The mirror assembly in claim 1 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.
20. The mirror assembly in claim 17 wherein said first and second circuit assemblies are interconnected by at least one wire bonded between said first and second circuit assemblies.
21. The mirror assembly in claim 20 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.
22. The mirror assembly in claim 17 wherein said first and second circuit assemblies are interconnected by a ribbon cable.
23. The mirror assembly in claim 17 wherein said heading sensor comprises a two-axis compass sensor.
24. A vehicle rearview mirror system, comprising:
  - a rearview mirror assembly comprising an electro-optic reflective element, a support for attaching said reflective element to a portion of a vehicle, said reflective element is moveable with respect to said support;
  - 5 a control for establishing a reflectance level of said reflective element and for determining a heading of the vehicle;

10        said control comprising a first circuit assembly and a second circuit assembly that are electrically interconnected, wherein said first circuit assembly is mounted to be moveable with movement of said reflective element, wherein  
10        said first and second circuit assemblies are built from a common circuit board and interconnected by at least one wire between said first and second circuit assemblies.

25.      The mirror system in claim 24 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.

26.      The mirror system in claim 24 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.

27.      The mirror system in claim 24 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.

28.      The mirror system in claim 24 wherein said first and second circuit assemblies are interconnected by a ribbon cable.

29.      The mirror system in claim 24 wherein said heading sensor comprises a two-axis compass sensor.

30.      The mirror system in claim 24 wherein said rearview mirror assembly includes a housing for said reflective element and said control.

31.      The mirror system in claim 30 wherein said housing is mounted to be moveable with movement of said reflective element.

32.      The mirror assembly in claim 24 including an opening in said first circuit assembly that is greater than or substantially equal to a size of said second circuit assembly.

33. The mirror assembly in claim 32 wherein said second circuit assembly is generally juxtaposed with said opening in said first circuit assembly.
34. The mirror assembly in claim 32 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.
35. The mirror assembly in claim 32 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.
36. The mirror assembly in claim 35 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.
37. The mirror assembly in claim 32 wherein said first and second circuit assemblies are interconnected by a ribbon cable.
38. The mirror assembly in claim 32 wherein said heading sensor comprises a two-axis compass sensor.
39. The mirror assembly in claim 32 wherein said rearview mirror assembly includes a housing for said reflective element and said control.
40. The mirror assembly in claim 39 wherein said heading sensor comprises a two-axis compass sensor.
41. The mirror assembly in claim 24 wherein said support comprises a ball mount having a ball and wherein said second circuit assembly is mounted at said ball.
42. The mirror assembly in claim 41 wherein said ball mount comprises a single ball mount.

43. The mirror assembly in claim 24 wherein said rearview mirror assembly comprises one of an interior mirror assembly and an exterior mirror assembly.

44. The mirror assembly in claim 43 wherein said first and second circuit assemblies are interconnected by ball-and-stitch bonding between said first and second circuit assemblies.

45. The mirror assembly in claim 41 wherein said first and second circuit assemblies are interconnected by a ribbon cable.

46. The mirror assembly in claim 41 wherein said heading sensor comprises a two-axis compass sensor.

47. The mirror assembly in claim 41 wherein said rearview mirror assembly includes a housing for said reflective element and said control.

48. The mirror assembly in claim 47 wherein said housing is mounted to be moveable with movement of said reflective element.

49. A vehicle rearview mirror system, comprising:

a rearview mirror assembly having an electro-optic reflective element, a support for attaching said reflective element to a portion of the vehicle and a control, said reflective element is movable with respect to said support;

5        said control for establishing a reflective level of said reflective element and for determining a heading of the vehicle, said control including a first circuit assembly and a second circuit assembly interconnected by at least one wire between said first and second circuit assemblies, said first circuit assembly mounted to be movable with movement of said reflective element, said second circuit assembly mounted substantially fixed at said support.